State of eLearning: Lessons for Government

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Chairman and co-Founder, eLearning Forum

LoD
Learning on Demand

Government Learning Technology Symposium
July 16, 2001

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Agenda

- ❑ **Industry Status in Perspective**

- ❑ **Users & Applications: Illustrative Cases**

  — **Peer-to-Peer eLearning & Collaboration**

  — **Learning in Online Communities**

  — **Games & Simulations: Next Generation eLearning**

  — **Mobile eLearning**

  — **Virtual Corporate Universities**

  — **Storytelling in eLearning**

Agenda, Cont'd

— **Corporate Culture Change & Strategy Communication**

— **eLearning along the Value Chain**

— **Visual Learning**

❑ **Future Visions**

❑ **Frameworks, Trends & Issues**

❑ **eLearning Realities & Challenges**

❑ **Global Perspectives**

❑ **eLearning in Government**

❑ **Implications & Lessons Learned**

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Learning: Key Success Factor

"Learning, the acquisition of knowledge, presents knowledge management with its central challenge. The defense of intellectual property, the sowing and harvesting of information, the exploitation of intellectual capital, and the benchmarking of competitors' intellectual assets are all important parts of the knowledge management game. But all of these are subordinate to the matter of learning. For it is learning that makes intellectual property, capital, and assets usable."

John Seely Brown & Paul Duguid
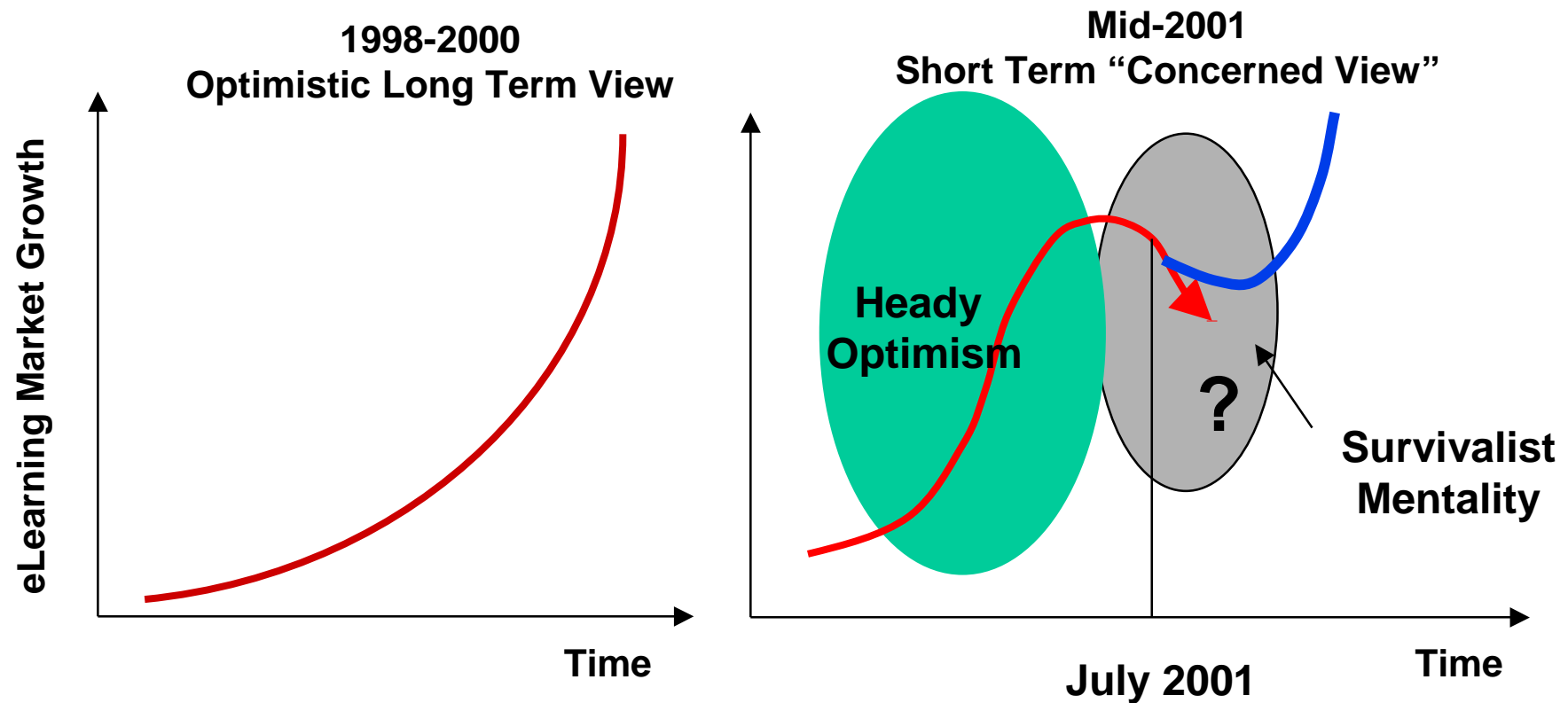*The Social Life of Information*

Industry Status in Perspective
Current Market Situation

1998-2000
Optimistic Long Term View

Mid-2001
Short Term "Concerned View"

eLearning Market Growth

Time

Heady Optimism

?

Survivalist Mentality

July 2001

Time

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Industry Status in Perspective

Pessimists' view of eLearning

❑ **Too technology-driven**

❑ **Alienating and isolating**

❑ **Ignores social nature of learning**

❑ **Limiting due to lack of broadband communication**

❑ **Too expensive; requires heavy up-front investment**

❑ **Poor content design; lack of good online pedagogy**

❑ **Low level of interactivity**

Industry Status in Perspective

Pessimists' view of eLearning, Cont'd

- ❑ **Too complex; and technology changes rapidly**

- ❑ **Requires lot of integration with legacy systems**

- ❑ **Little research on effectiveness**

- ❑ **Hard to measure ROI**

- ❑ **Few, if any, end-to-end solutions in market**

- ❑ **Very fragmented and confusing market place**

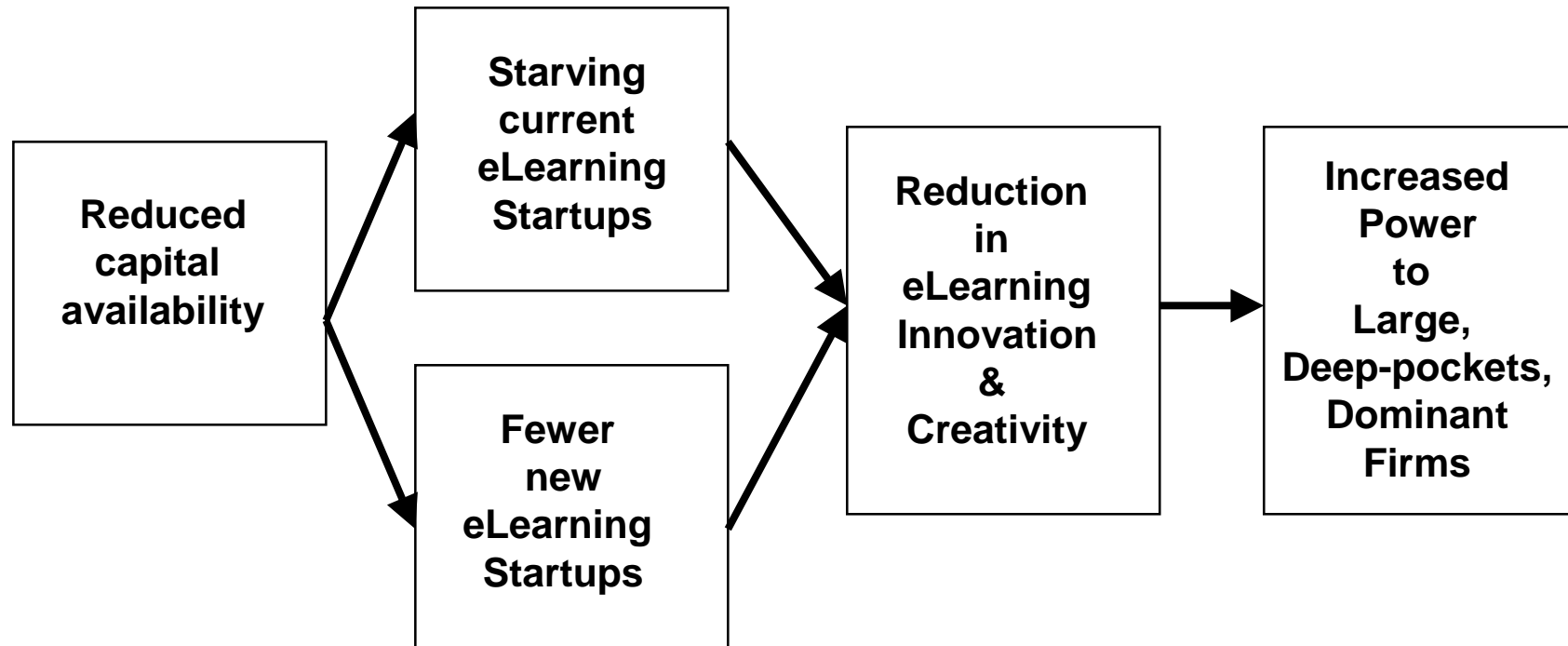- ❑ **Tempts companies to push training into workers' leisure time**

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Another Pessimistic View

```
Reduced
capital
availability
```

→

```
Starving
current
eLearning
Startups
```

```
Fewer
new
eLearning
Startups
```

→

```
Reduction
in
eLearning
Innovation
&
Creativity
```

→

```
Increased
Power
to
Large,
Deep-pockets,
Dominant
Firms
```

Industry Status in Perspective

Current Issues & Problems

❑ **Still a lot of eLearning hype — sets unrealistic expectations**

❑ **User organizations often don't calibrate expectations**

❑ **Some user organizations take attitude of "Build it and they will come" — not conducive to success**

❑ **Need to work with "change agents" and build support**

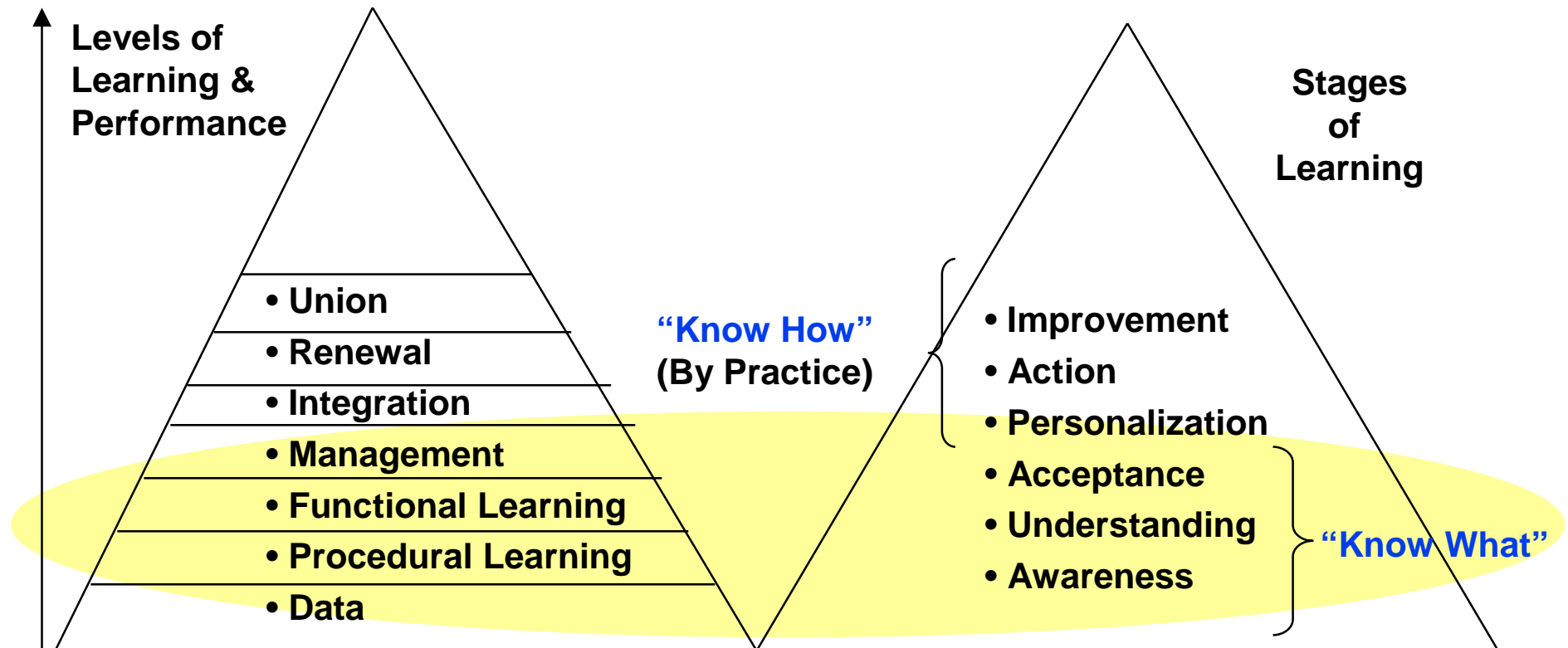❑ **Few organizations have active involvement and support of top management**

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Industry Status in Perspective
eLearning: Still in Childhood phase

Levels of Learning & Performance

- Union
- Renewal
- Integration
- Management
- Functional Learning
- Procedural Learning
- Data

"Know How" (By Practice)

Stages of Learning

- Improvement
- Action
- Personalization
- Acceptance
- Understanding
- Awareness

"Know What"

Sources: Verna Allee; John Seely Brown & Paul Duguid; SRIC-BI

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Industry Status in Perspective

eLearning Evolution

eLearning: From Childhood to Adolescence to Adulthood

Content/Objectives (vertical axis):
- Shared Knowledge/Problem Solving
- Knowledge Transfer/Skill Acquisition
- Information Transfer/Reproduction

- Collaborative Technologies
- Interactive Technologies
- Distributive Technologies

Methods (horizontal axis):
- Instructor Centered
- Learner Centered
- Team Centered

Strategies:
- Learning by Telling
- Learning by Doing
- Learning through Discussion and Reflection

Source: University of St. Gallen

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Industry Status in Perspective

Organizational Advantages

❑ *Cost Savings*: **Can be substantial but depend on application, size of organization and many other variables**

❑ *Cycle Time*: **Can shorten "time-to-insight"and "time-to-competence" and get knowledgeable sales force into field faster**

❑ *Increased Customer Retention and Loyalty*: **Use eLearning to educate customers about company and its products & services**

❑ *Attract & Retain Talent*: **Demonstrate willingness to invest in people and provide range of learning options**

Industry Status in Perspective
Learner Advantages

- **Personalization** The eLearning system adjusts to learners' needs, preferences and learning styles.
- **Interactivity** The eLearning approach engages the eLearner
- **Just-in-time delivery** Learners access learning when they need it.
- **Current content** Systems can easily update material and keep it relevant
- **Learner-centric approach** The "Sage on stage" gives way to "guide by side"
- **Distributed approach** Learning is accessible anywhere that the learner can access the Internet or intranets
- **Relevance** Learning aligns with the specific needs and tasks, which is the key to cost-effective learning in the workplace
- **Granularity** Learning is available at a format and size that fit learner needs in a specific situation

Users and Applications: Illustrative Cases

Peer-to-Peer (P2P) and Collaboration

❏ **Groove Networks: leading vendor of powerful platform for online, P2P learning and collaboration**

❏ **Functionalities include chatting (audio or text), sharing variety of files, touring the Net together, and online meetings.**

❏ **Example of innovation that can empower individuals and teams to engage in knowledge creation and sharing.**

❏ **GlaxoSmithKline scientists are able to collaborate with people in biotech firms and universities, sharing sensitive data and coordinate activities.**

❏ **Other early adopters: Ford, Baker & McKenzie (law firm), ABN Amro (banking), andErnst & Young.**

Users and Applications: Illustrative Cases

Learning in Online Communities

❑ **Hallmark in recent years has been building communities to tighten linkages of company to its franchisees and customers**

❑ **Company used Pensare's eLearning platform to build learning community among its franchisees and encourage sharing of operational best practices**

❑ **Latest effort has been to build variety of online communities ("Idea Exchanges") to gain new product ideas and insights from consumers (using Communispace platform).**

❑ **General Mills, Kraft Foods, Motorola and others now used online bulletin boards, virtual focus groups, electronic surveys, and online chats with customers.**

Games and Simulations: Next Generation eLearning

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❑ Objectives: Provide more engaging and fun learning which will also result in more effective learning

❑ Think3 (a CAD software vendor) commissioned Games2Train to create The Monkey Wrench Conspiracy to teach target groups (mostly young software engineers) about its new product

❑ Cognitive Arts, Experience Point, SMGnet, Intermezzon, Accenture, Powersim, Imparta and others build simulations-based eLearning products for hundreds of companies

❑ New tools are emerging to make it easier and lower cost to create simulations-based eLearning

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Users and Applications: Illustrative Cases

Mobile eLearning: The New Frontier

- ❑ **Nokia, INSEAD and Icus formed Asia-Pacific Consortium to pilot m-learning course, using Wireless Applications Protocol (WAP) for mobile phones and Web delivery**

- ❑ **Eighty percent of overall course was accessible by phone, including links to Web sites, multiple choice questionnaires, and quick reminders and alerts from coaches**

- ❑ **Cisco, pharmaceuticals companies and others are also testing use of PDAs for eLearning**

- ❑ **PDAs and mobile phones may find use for performance support role and for delivering eLearning learning objects (growing use of XML will support such use)**

Users and Applications: Illustrative Cases
Virtual Corporate Universities

- ❑ **Logical evolution and consequence of growing online offerings by academic universities, growth of corporate universities around world and in eLearning**

- ❑ **Telenor, Lufthansa, Daimler-Chrysler and many others are expanding the eLearning components of their corporate universities**

- ❑ **Growing supply of generic or customized eLearning courses on eCommerce/eBusiness and other subjects will boost interest in virtual corporate universities**

- ❑ **Highly mobile, young executives will find great value in virtual corporate universities and become key constituency**

Users and Applications: Illustrative Cases

Storytelling in eLearning

- ❏ **Xerox has found storytelling an effective way to capture and share important tacit knowledge among their service personnel**

- ❏ **Growing numbers of companies are also using stories told by customers in company marketing and PR**

- ❏ **Through use of digital media, storytelling could become important means of communicating key aspects of an organization's corporate culture ("the way we do things around here")**

- ❏ **Digital repositories of stories could be particularly useful after M&As and for new hires**

Corporate Culture Change & Strategy Communication

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❑ **Involve Learning — a Pan-Nordic eLearning company — has developed eLearning content for Ericsson, Electrolux, Braathen and others to communicate (new) strategy and help change corporate culture**

❑ **Companies can very quickly implement and test everyone's understanding of new strategy (for different functional responsibilities)**

❑ **At time of accelerating (internal and external) change, and frequent changes in corporate strategy, eLearning may find growing application in this domain.**

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Users and Applications: Illustrative Cases

eLearning Along Value Chain

❑ **AstraZeneca offering free online Continuing Medical Education courses (produced by HealthStream) to doctors — as way to train AstraZeneca's customers**

❑ **Barnes & Noble has invested in eLearning company Powered (ex NotHarvard.com) to provide eLearning courses to its customers — to capture and retain customers**

❑ **Autodesk is creating wide range of online learning content available to build customer community — and now extending beyond traditional markets**

❑ **Online (vertical) market places (like Covisint in autos) will feature "collaborative commerce" and learning will likely become an important component**

Users and Applications: Illustrative Cases

Visual Learning

❑ **For many learners, visual learning material can improve understanding and retention — and use of audio and animations (through Macromedia's Flash, for example) can increase effectiveness.**

❑ **Xplane is one company that has gained visibility through its highly visual explanations ("Xplanations") used in many Business2.0 articles**

❑ **Knowledge Platform (Singapore) is an eLearning company that is making effective use of animations — for example, in its eBusiness 101 courses**

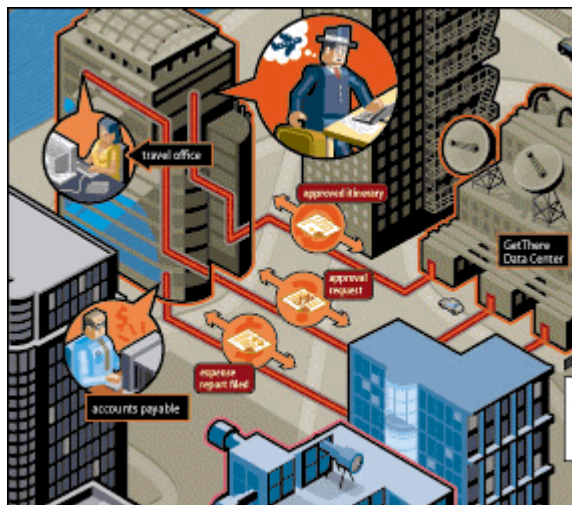❑ **Qarbon Viewlets represent low-cost way to provide visual explanations online**
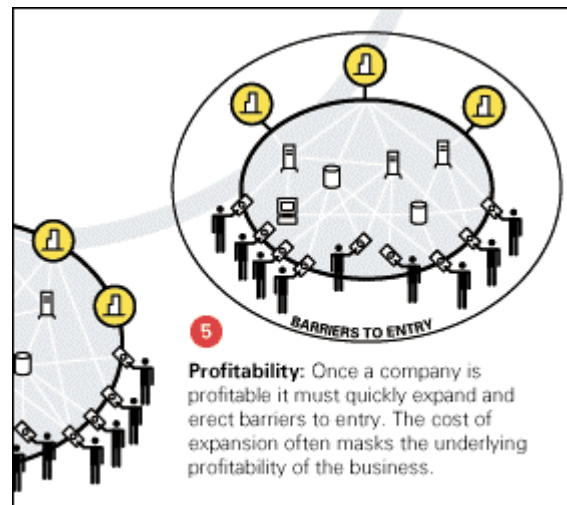
Visual Learning by Xplane

The final XPLANATiON (large download). *Click to see full-size.*

Profitability: Once a company is profitable it must quickly expand and erect barriers to entry. The cost of expansion often masks the underlying profitability of the business.

The Internet Company Life Cycle. *Click to see full-size.*
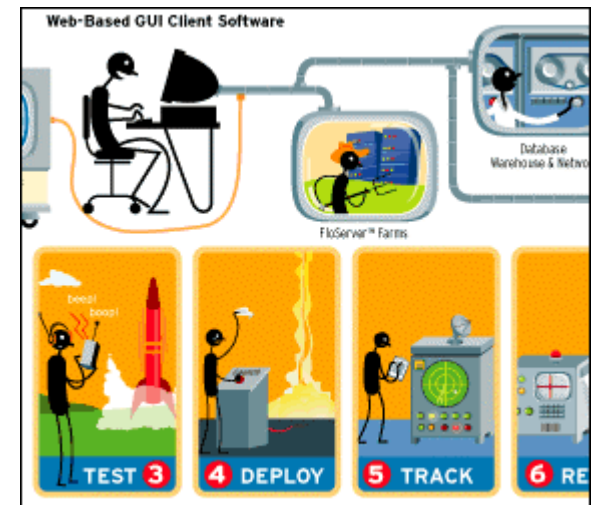
The Flonetwork Process. *Click to see full-size.*

Visual Learning by Xplane, Cont'd
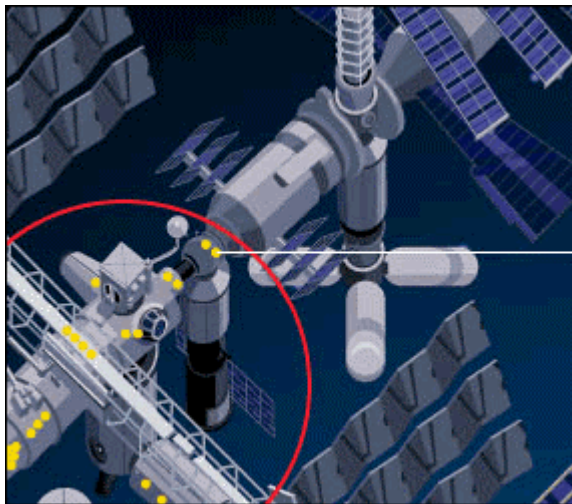
The International Space Station. *Click to see full-size.*

WHAT ARE NAN

Nanobots are the molecule s
the nano-manufacturing wor
essentially molecular machin
molecule-by-molecule contro
process.
At the most basic level there
these nanobots take. Genera
self replicators.
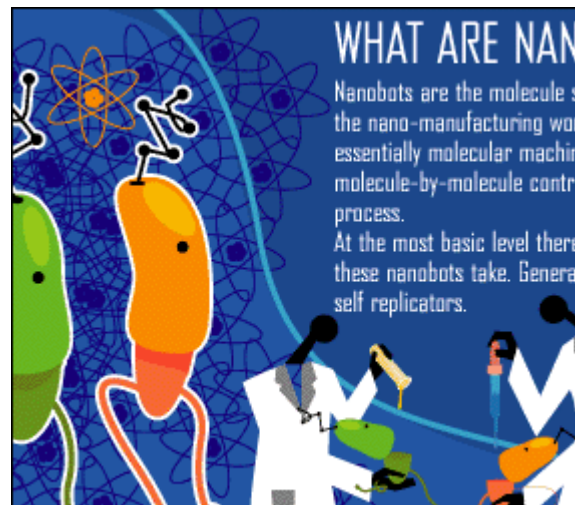
What is nanotechnology? *Click to see full-size.*

4 FloNetwork deploys personalized email message

6 Enthusiasts can pass along message to friends who can also subscribe

5 Customer receives message and clicks through to web content
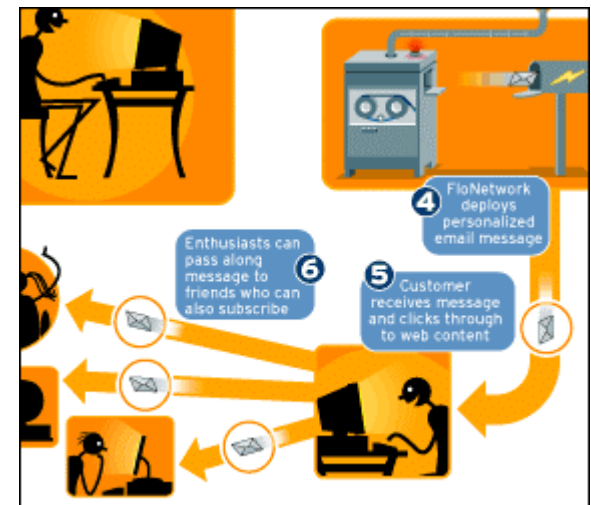
The viral effect. *Click to see full-size.*

Knowledge Platform
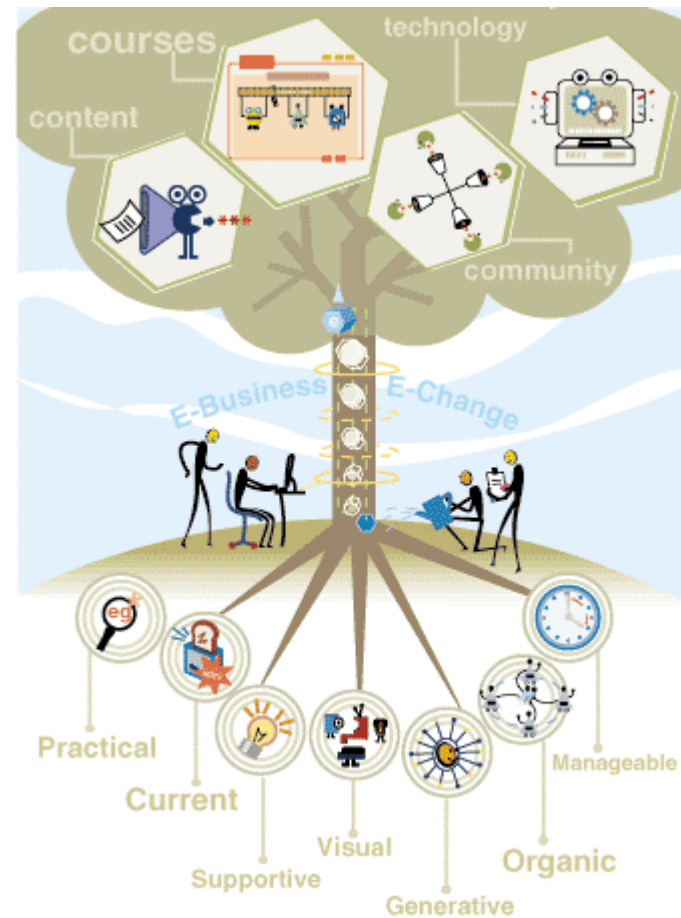
Future Vision

LoD eLearning Vision

In the workplace, learning is most effective when an employee can access learning materials on demand, at the point of highest need, anywhere & any time, when solving enterprise problems.

❑ Increasingly granular learning content and objects
❑ Use of electronic networks (ideally wireless) for ubiquitous access
❑ Use of (small) portable devices to access learning materials
❑ Learning content embedded in work processes

Future Vision

LoD Vision: Features

❑ **More learner and team-centric**

❑ **Greater alignment with work needs**

❑ **Greater flexibility — when, where and how**

❑ **More efficient — eliminate redundancy**

❑ **Greater targeting — through granularity**

❑ **Universal access — regardless of location**

❑ **Always updated content**

Future Vision

Learning Visions: K-12

Students working with wireless, PDA-like devices doing interactive and team-based exercises in class to demonstrate mastery in science, math and other subjects. Using devices and specific environmental science-specific applications during field trips, inputting data collected and running computer-based experiments.

Accessing learning portals with media-rich materials from home-based PCs and interacting with teachers and other students.

Future Vision

Learning Visions: University

Students engaging in explorative learning and learning-by-doing through the use of games and simulations-based learning modules. These modules provide highly realistic, engaging, effective and safe learning environments (possibly with competitive elements). These learning environments — which could involve running hypothetical eBusiness operations — can test students' understanding and performance in a number of different scenarios.

Some simulations may involve distributed teams in different countries, competing against each other.

Future Vision
Vision: Engaging Content

Interactivity:
Learner can be engaged through the use of
• High degree of realism
• Large number of choices
• Freedom of choice

Visualization:
• Rich form of graphics to depict complex relationships
• Can improve realism and thus gain learner partici-pation

Drama:
• Often through audio effects
• Frequent use of humor
• Can be used via story design

Engagement

Storytelling:
• Crucial part of G&S--without strong and compelling story learner will lose interest

Competition:
• Can be key driver of engagement for many individuals
• Can also be used effectively in team efforts

Social Context:
• Weakness of many current products on the market
• Learning is social process but this is typically ignored
• Strong coaching or mentoring can be effective solution

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Future Vision

Learning Visions: Workplace

| Orientation to selling | Key Product | Practical Application #1 | On-the-job Experience | Advanced Sales Skills | Practical Application #2 |
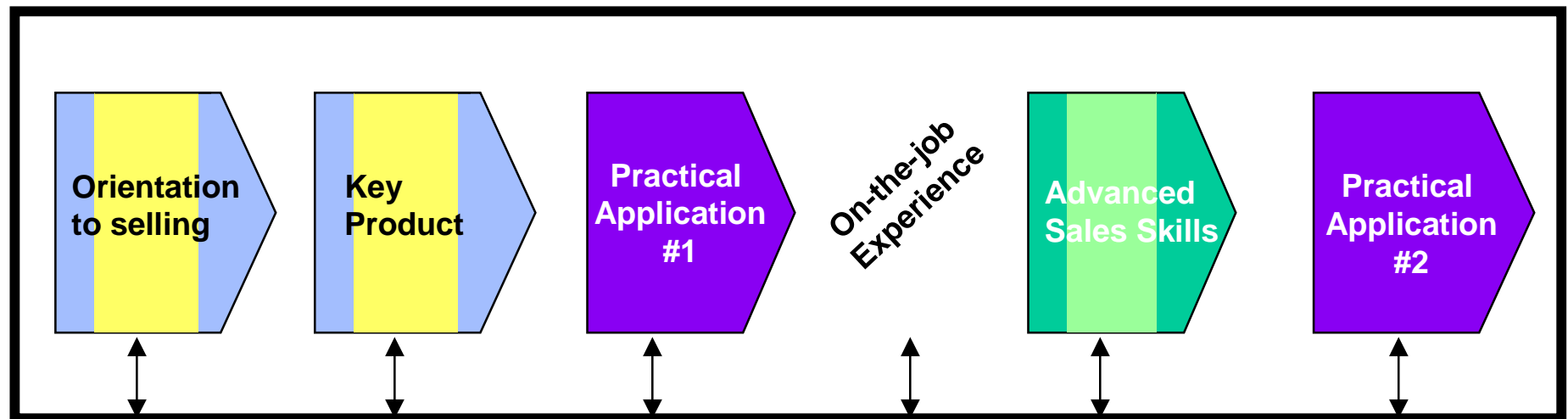
↕ **Push and pull from electronic networks (and use of network-based collaboration)**

| Class-room | Online | Ment-oring | E-ment-oring | Field experience |

Sourcd: SRIC-BI; Marc Rosenberg

Frameworks, Trends & Issues
LoD eLearning Framework
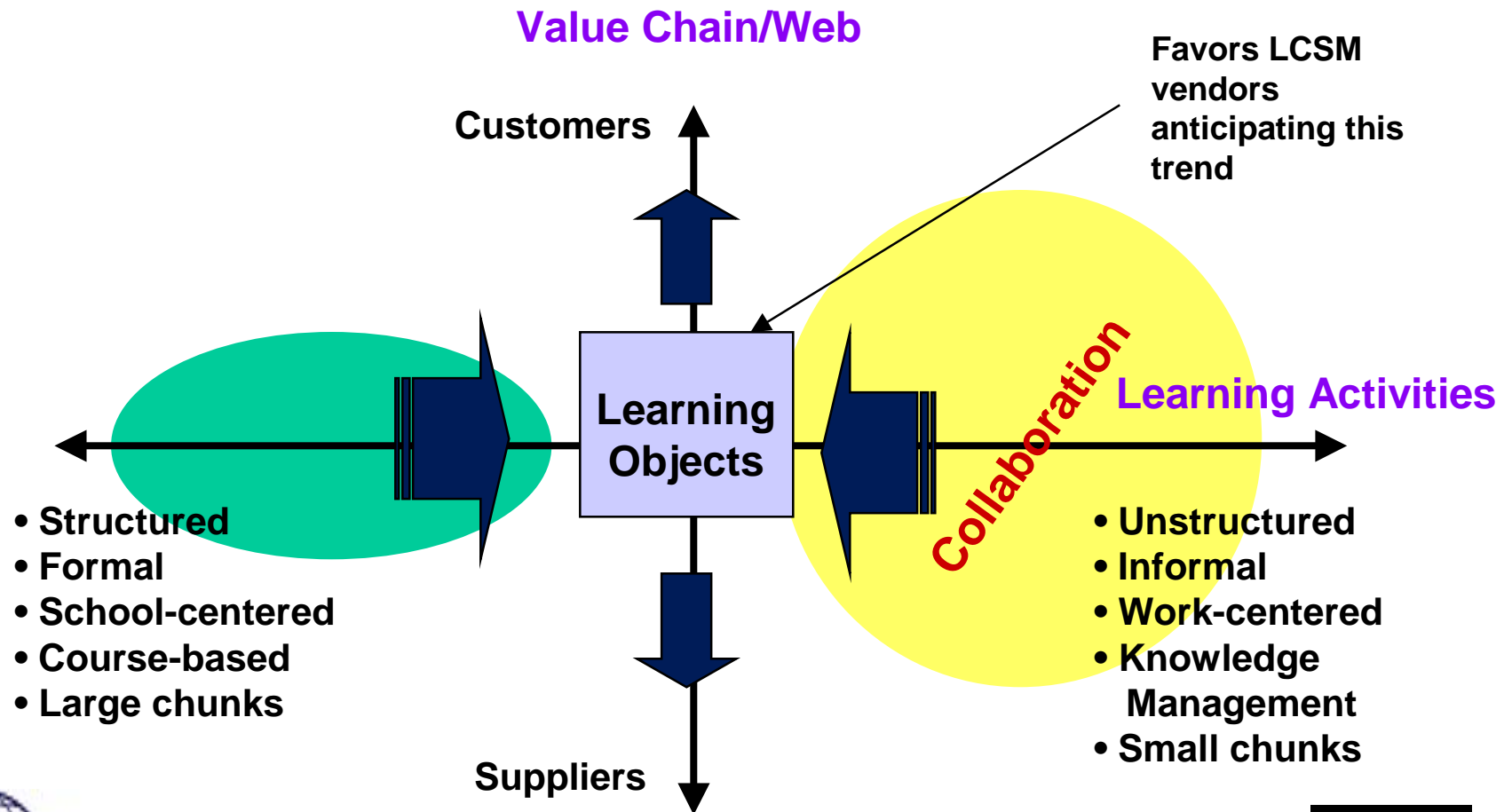
Value Chain/Web

Favors LCSM vendors anticipating this trend

Customers

Learning Objects

Collaboration

Learning Activities

- Structured
- Formal
- School-centered
- Course-based
- Large chunks

- Unstructured
- Informal
- Work-centered
- Knowledge Management
- Small chunks

Suppliers

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Frameworks, Trends & Issues

Selected items of Learning toolbox

- **Synchronous platforms**
- **Asynchronous platforms**
- **Customized content**
- **Off-the-shelf content**
- **Collaborative learning**
- **Knowledge management**
- **Virtual classrooms**
- **Blended learning**
- **Structured Web-based courses**
- **Granular learning objects**

- **Simulations and games**
- **Performance support**
- **Integration with work processes**
- **Prescribed curriculums**
- **Learner-centered materials**
- **Personalized learning portals**
- **Mentoring**
- **Resource center**
- **E-mail communication**
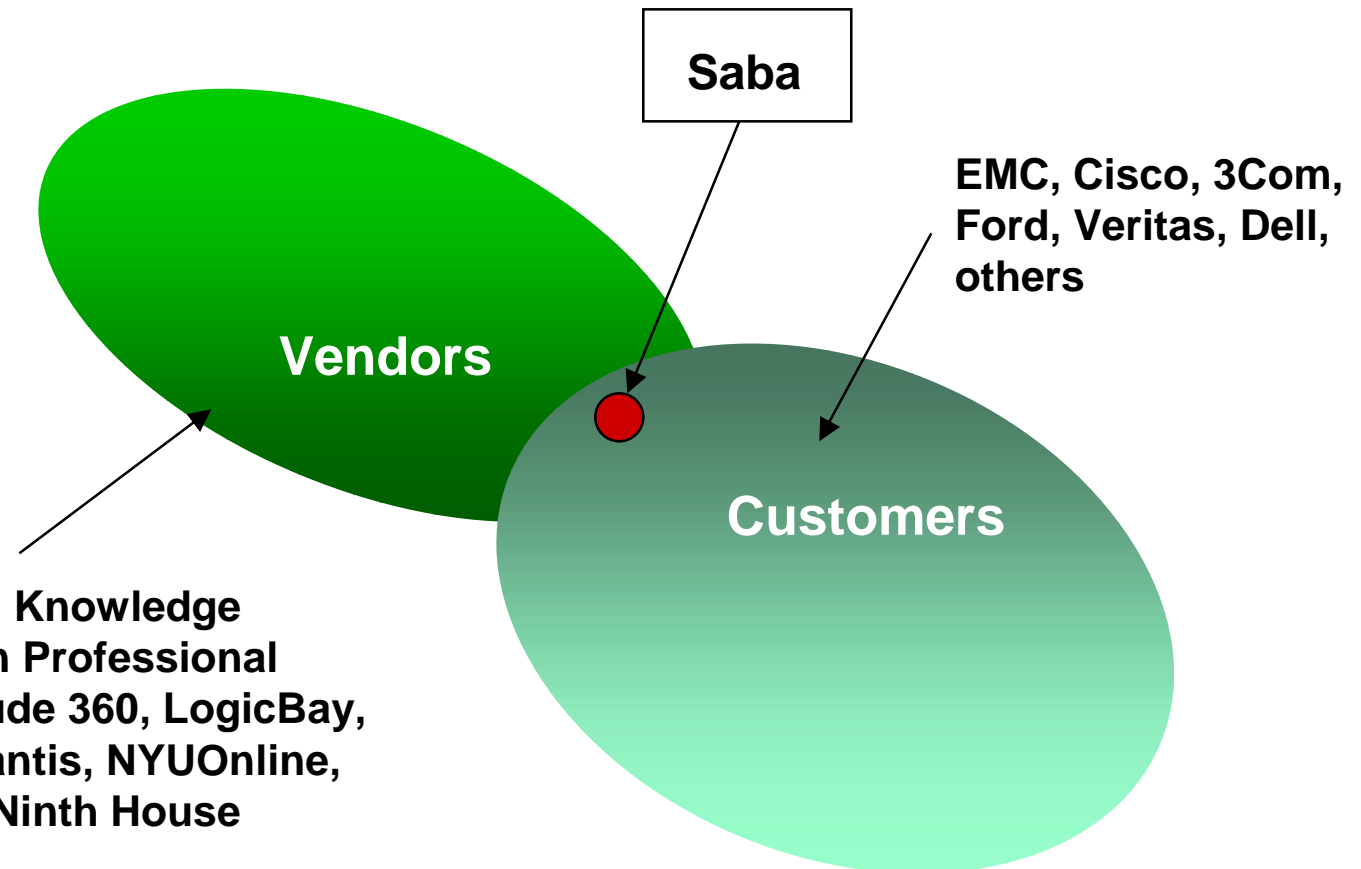- **Broadband solutions**

Frameworks, Trends & Issues
Emerging eLearning Ecosystems

Goals:
- **Co-branding**
- **Building loyalty**
- **Quick access to global markets**
- **Economies of scale**
- **Shared customer bases**

Saba

EMC, Cisco, 3Com, Ford, Veritas, Dell, others

Vendors

Customers

Centra, Digital Think, Knowledge Mechanics, Raytheon Professional Services, PwC, Latitude 360, LogicBay, Cisco, Avaltus, Triviantis, NYUOnline, Deloitte Consulting, Ninth House

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Frameworks, Trends & Issues
Cisco's Architectural Elements

Cisco E-Learning Solutions Architecture

Cisco E-Learning Connections

| Employee | Field | Partner | Customer |

Cisco E-Learning System

Enabling Infrastructure

Assessment (COLT)
Video on Demand (VOD)
Virtual Classroom (PlaceWare)
User Profile (INFO)
Virtual Hands-on Labs (Mentor)

E-Commerce (Learning Store)
Entitlement (CCO)
Learning History (GTMS)
Training Management (GTMS)
Simulation (CIM)

Cisco E-Learning Network

Foundation Infrastructure

Network   Security   Directory Services

Fundamental technologies that provide secure, manageable, ubiquitous, high bandwidth access for all networked applications, enabling e-learning technologies and-content.

F0_6884_c1   © 2000, Cisco Systems, Inc.   www.cisco.com   14

Frameworks, Trends & Issues
Key Components: Cisco

E-Learning Components

Reusable Content
Content Item
Content Database

Knowledge Shift
New Competencies

Network Infrastructure

Assessment
User Profile
Learning History
Entitlement
Custom
Learning Effectiveness Index
Talent Management

E-text
Virtual Lab
Collaboration
Interactive Multimedia
Content on Demand
Video Conferencing
Broadcast Video
Simulation

Knowledge: *The new competitive advantage*

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Frameworks, Trends & Issues

Autodesk eLearning Model

LMS Side | Learner Side

Autodesk e-Learning

LEARNERS

- **Field**
- **Partners**
- **Customers**
- **Employees**

Standards, Tools Templates

SME's, Content Developers

Content
Intellectual Property (IP)

Re-purpose

ILT
Communities
Portals
Seminars
Virtual Classroom
E-Books
Simulations
Content on Demand
CDs
Courseware

= Learning Solutions

Learning Management System

Prescription	Registration	Tracking	Assessment	Management

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Frameworks, Trends & Issues
Smartforce platform elements
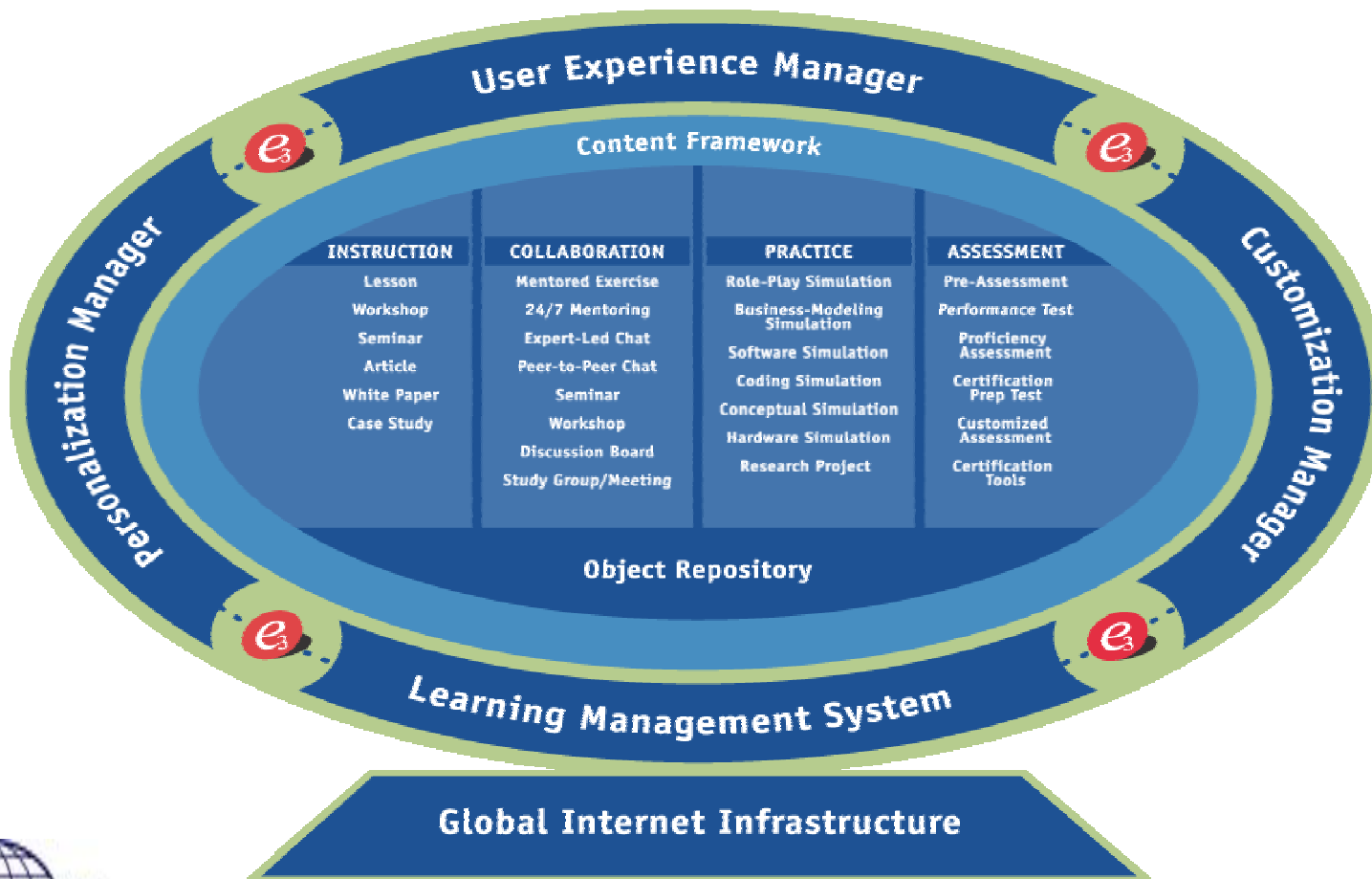
Frameworks, Trends & Issues

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Selected Drivers/Enablers

DEMAND:
- **Inadequacy of current learning models**
- **Meets needs of new workforce**
- **Need for greater on-demand learning**
- **eLearning meets needs for flexible access to lifelong learning**
- **Cost effective way to meet learning needs of distributed work force**

eLearning

SUPPLY:
- **Network technologies favor eLearning**
- **Advances in digital technologies enable creation of better content**
- **Computer hardware and software advances**
- **Lower cost and more accessible network access at work and home**
- **More numerous and better vendors of eLearning products and services**

eCommerce/eBusiness: Key Driver in both Demand & Supply

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eCommerce ➡ eLearning

- ❑ **Improving Internet, intranets and extranets infrastructure**

- ❑ **Tighter integration of players along value chain**

- ❑ **Improving search engines and embrace of XML**

- ❑ **Power shift towards buyers**

- ❑ **Increasing personalization and customization**

- ❑ **New and innovative market spaces**

- ❑ **New business models**

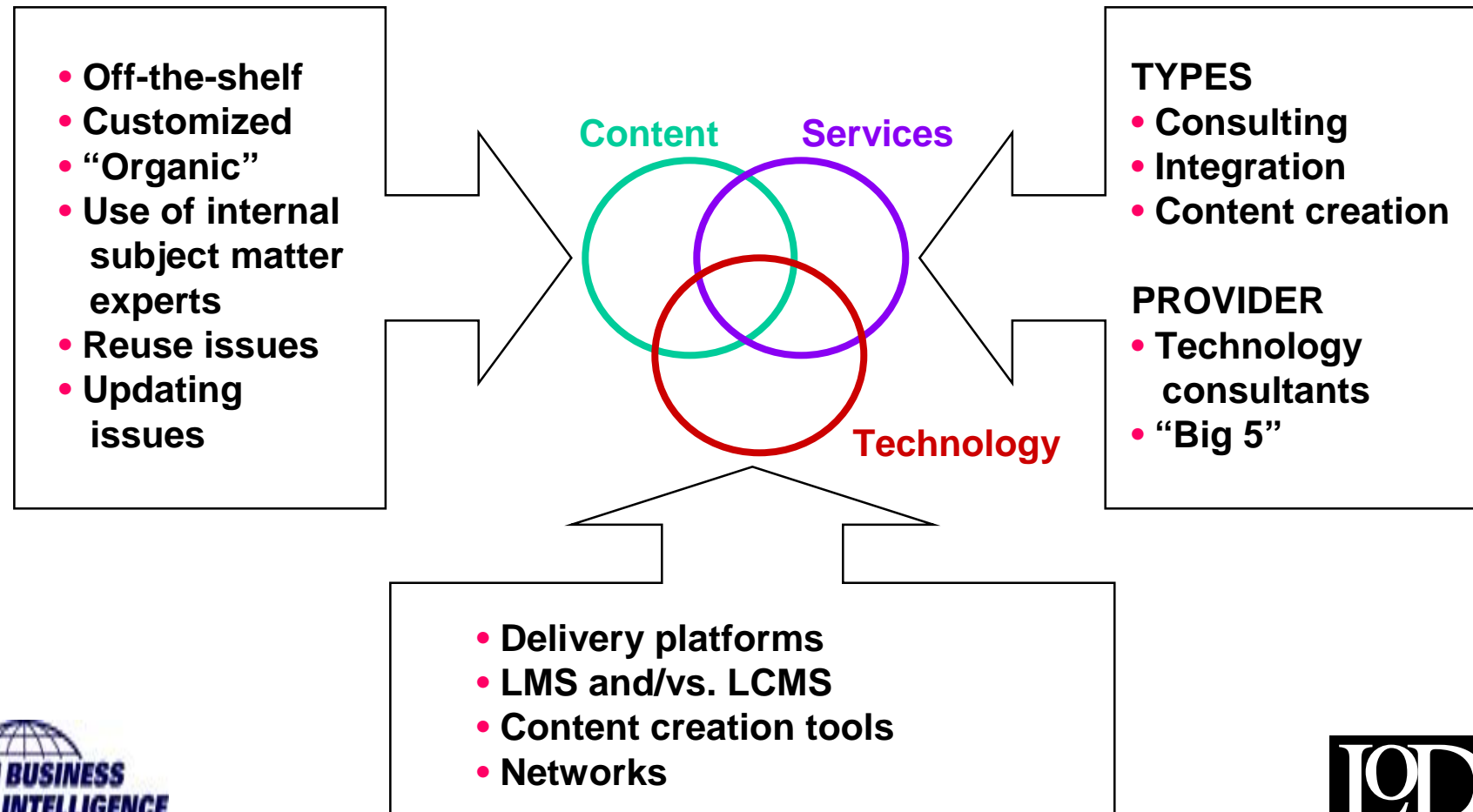- ❑ **New payment systems**

- ❑ **Wireless device proliferation**

- ❑ **Portals galore**

Frameworks, Trends & Issues
Dynamic and Complex Marketplace

- **Off-the-shelf**
- **Customized**
- **"Organic"**
- **Use of internal subject matter experts**
- **Reuse issues**
- **Updating issues**

Content **Services**

Technology

TYPES
- **Consulting**
- **Integration**
- **Content creation**

PROVIDER
- **Technology consultants**
- **"Big 5"**

- **Delivery platforms**
- **LMS and/vs. LCMS**
- **Content creation tools**
- **Networks**

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Frameworks, Trends & Issues

Alliances of the "Big Five"

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KnowledgePlanet

Lotus

PwC

Accenture

Indeliq (spinoff)

Saba

Docent

Intellinex (subsidiary)

Deloitte

KPMG

Cap Gemini Ernst & Young

SmartForce

ISOPIA*

DigitalThink

* Acquired by Sun

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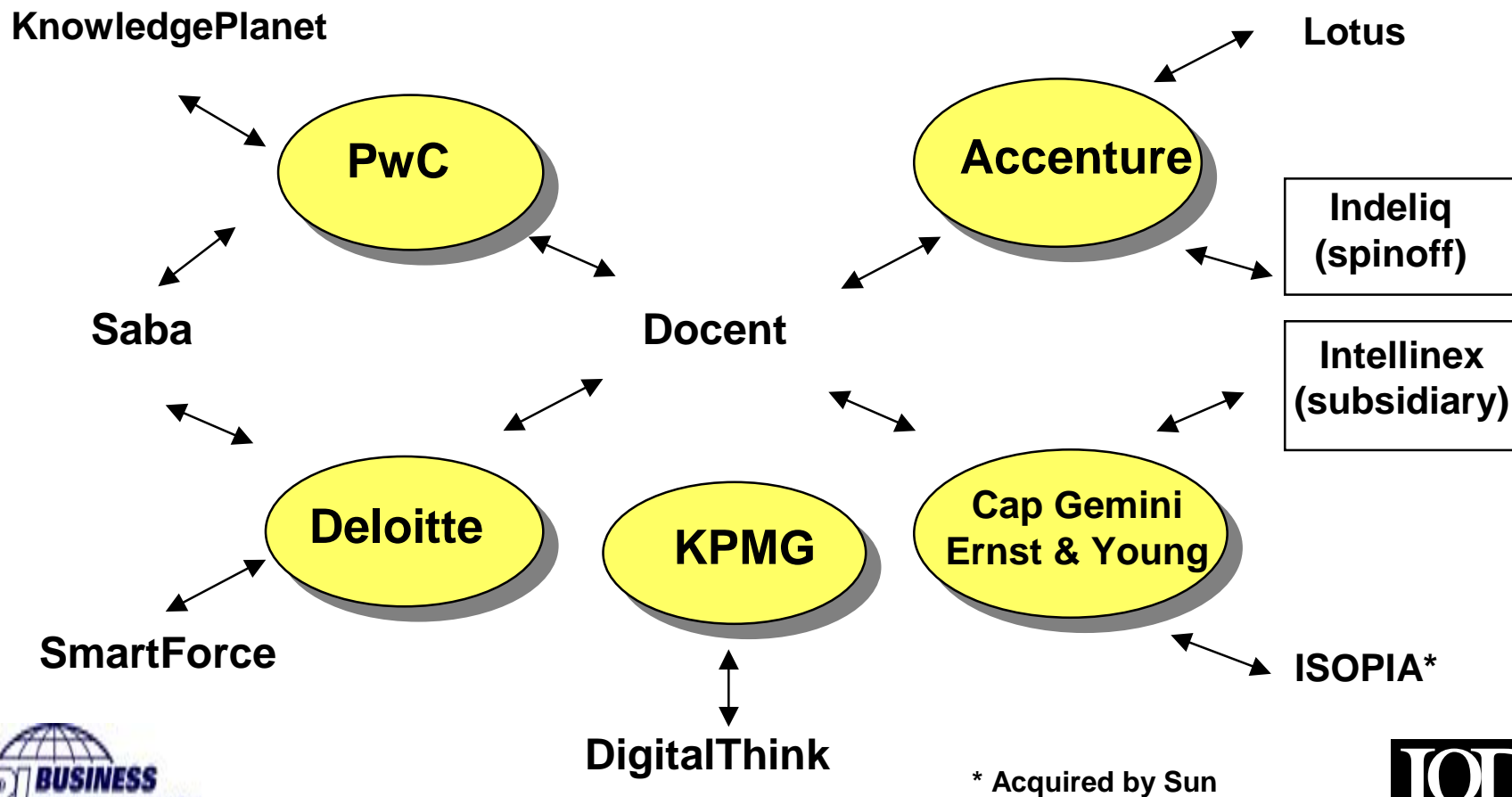
Frameworks, Trends & Issues
Growing Presence of Tech Giants
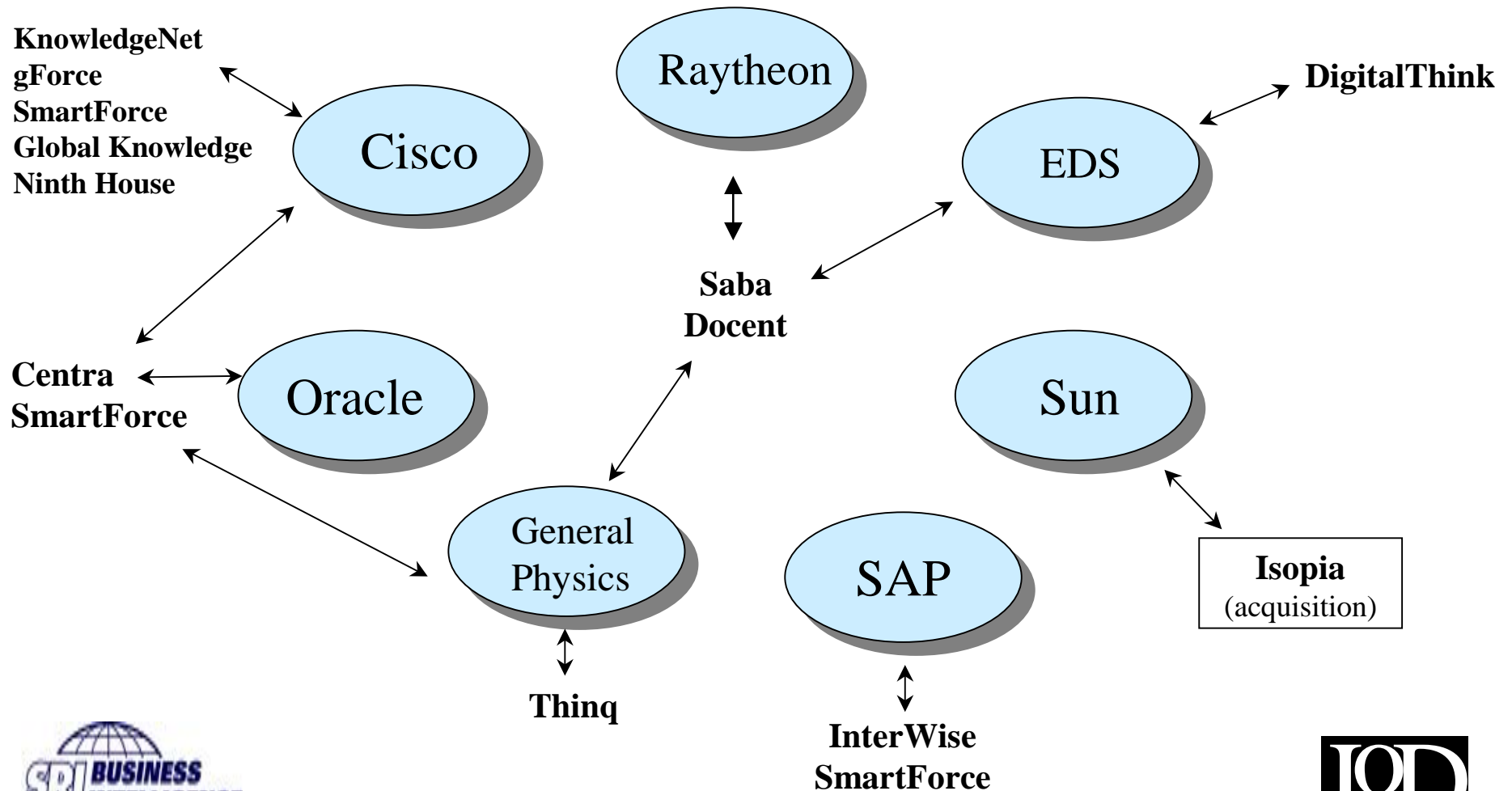
KnowledgeNet
gForce
SmartForce
Global Knowledge
Ninth House

Raytheon

DigitalThink

Cisco

EDS

Saba
Docent

Centra
SmartForce

Oracle

Sun

General
Physics

SAP

Isopia
(acquisition)

Thinq

InterWise
SmartForce

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Frameworks, Trends & Issues

Future of Universities

Peter Drucker's pessimistic perspective:

> " Thirty years from now, the big university campuses will be relics. Universities won't survive…"
>
> Forbes; March 10, 1997
>
> " In 5 years, we will deliver most of our executive management programs online."
>
> Business 2.0; August 22, 2000

Implications for Corporate Universities?

Frameworks, Trends & Issues
Perspective from Carnegie Mellon

❑ **First U.S. university to build its own campus-wide computer network**

❑ **"Building Virtual Worlds": course brings together science, design, and humanities students to learn about teamwork by creating virtual-reality worlds experienced with special headsets**

❑ **Virtual Tutors: Dozen software programs that act as tutors on variety of topics**

❑ **Virtual Chemistry Lab: Deploys simulations to learn chemistry**

❑ **The Management Game: MBA students manage made-up companies, using the web to collaborate, track each others' performance, trade virtual stocks, and analyze business plans**

Frameworks, Trends & Issues

University eLearning Dynamics

• Columbia
• Cornell
• NYU
• Temple
• UCLA
• Univ of
  Maryland
• George   town
• Florida State
• Duke Univ

Universities

For-profit units

Professors

eLearning companies

+
Gurus:
• Peter Drucker
• Gary Hamel
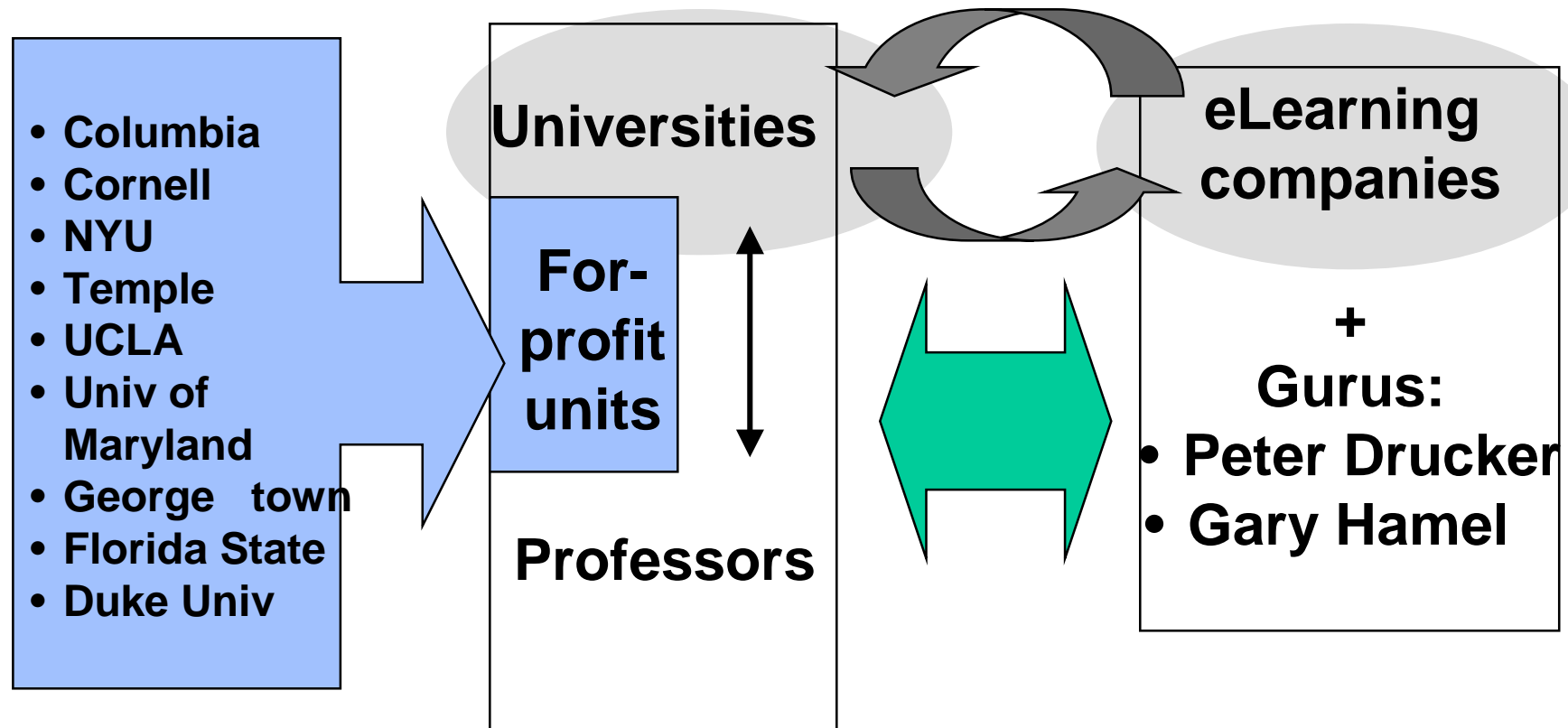
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Ivy League targeting eLearning

Oxford University

Stanford University

University Alliance for Life Long Learning*

Princeton University

Yale University
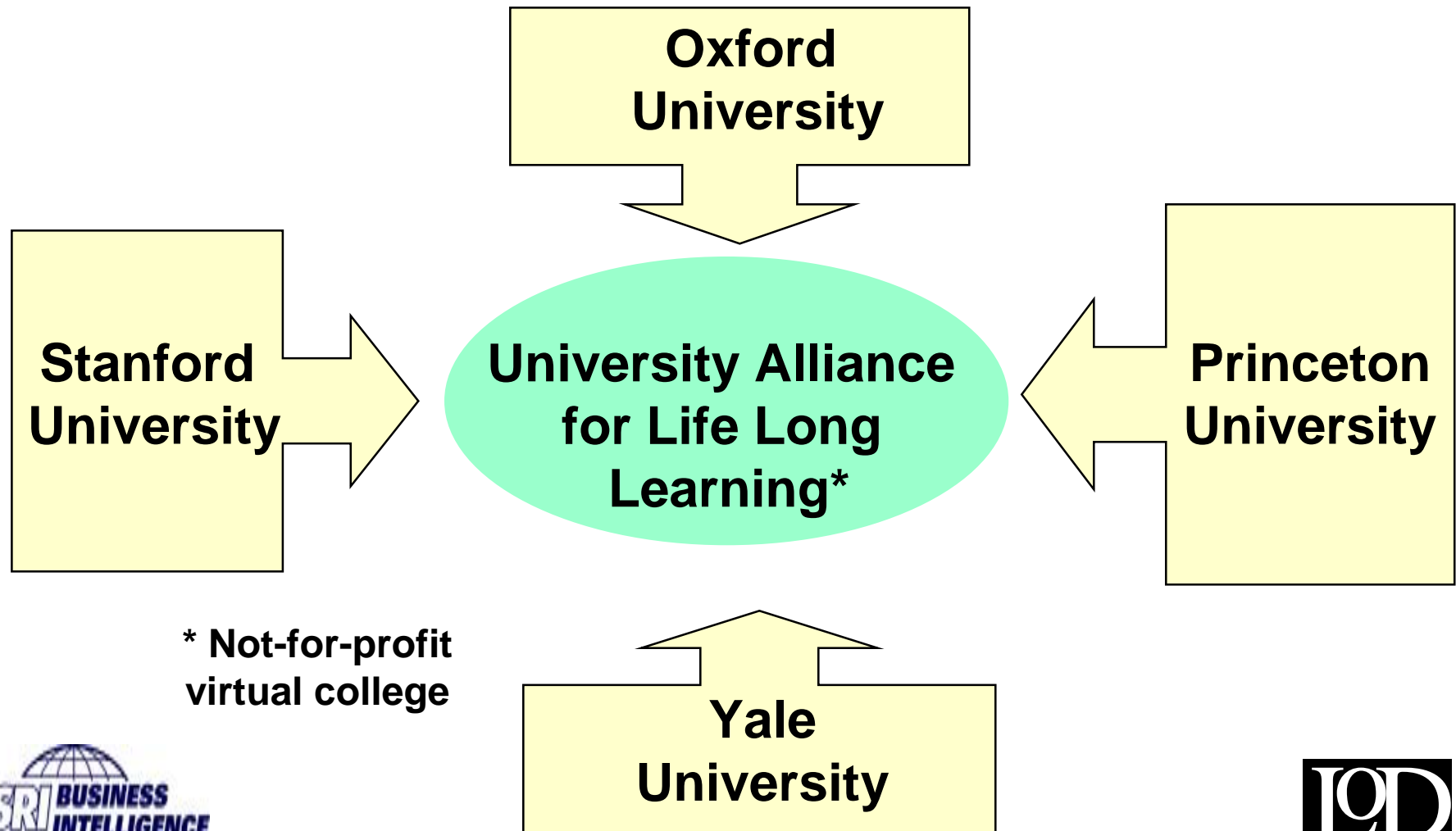
* **Not-for-profit virtual college**

Frameworks, Trends & Issues
Universities in Content Marketplace

Content Creators

- Universities
- Corporations* or Corporate Universities
- Learning Networks
- Publishing Houses
- Knowledge Brokers
- Independent Content Developers
- Media
- Others**

Portals:
- Internal Enterprise Portals
- External, Internet-Based Portals

Other Aggregators or Intermediaries

End Users
- Work
- Home
- School/Universities

Direct Content Delivery to End Users***

* Include multimedia companies that create content, often in cooperation with clients.

** May include conference organizers and others.

*** May be synchronous delivery over satellite networks.

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LOD Learning on Demand

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eLearning Realities and Challenges

Today's eLearning Vendor Realities

❑ **Key issue: Demonstrating cost savings**

❑ **Intense competition — price and winning "marquee customers" increasingly important**

❑ **Concern: Lengthening sales cycle**

❑ **Market uncertainty favors large players**

❑ **Interoperability standards rising in importance**

❑ **Buyers want integrated, end-to-end solutions**

eLearning Realities and Challenges

2001 Vendor Strategies

❑ **Decline of B2C Model (except in IT eLearning)**

❑ **Growing focus on sales & customer service elearning**

❑ **More competition for public and private sector contracts**

❑ **Continued partnering/alliance efforts**

❑ **Growing focus on content authoring/management**

❑ **Growth of vendor/ASP hosting**
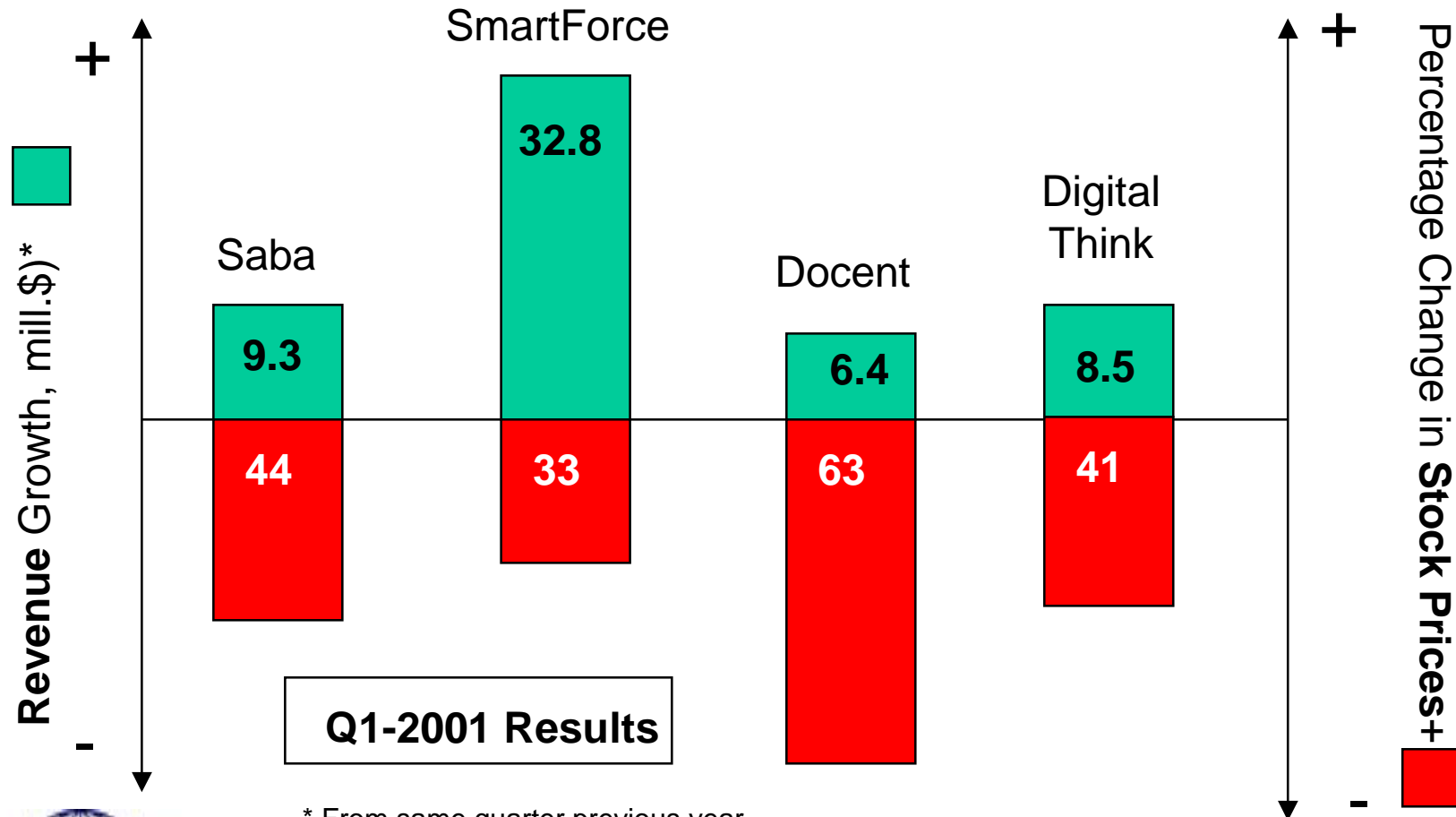
eLearning Realities and Challenges
Consolidation

Major Bankruptcies / M&A's, Jan.-June 2001

	Jan	Feb	Mar	Apr	May	June
Bankruptcies	Learning-Brands	Headlight Virtual Heaven		Pensare		Caliber Peer3 TCert
Acquisitions		Intellinex/ Teach.com	Learncom/ Trainseek	SmartForce/ ICGlobal Centra/ MindLever Click2Learn/ Intelliprep	Saba/ HPT	Sun/ Isopia Saba/ Ultris
Mergers				Learn2.com Merges with EStamp		

2001

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eLearning Realities and Challenges

User implications

❑ **Buyer's market shifting power balance**

❑ **"Bake-offs" becoming more common**

❑ **Budgets will go farther and overall quality will improve**

❑ **Risk management and contingency planning may be prudent strategy**

❑ **Be prepared with payoff/ROI-analysis to show value of eLearning program to top management**

Global Developments

European Opportunities

❑ **Nordic region (with Sweden in the clear lead) and Ireland are eLearning vendor "hotspots"**

❑ **Germany and UK will be the biggest European markets for eLearning**

❑ **France and Southern Europe is seeing slower adoption (for now)**

Global Developments

European Market Features

❑ **Both private sector and governments very active in eLearning in Nordic countries**

❑ **Strong demand/interest has stimulated explosion in eLearning startups (now struggling from lack of capital)**

❑ **Growing interest in Germany, but users want proven and well-functioning systems**

❑ **Private-public partnerships popular**

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Global Developments
European Market Developments

❑ **Some US companies, like SmartForce, have long been active in Europe, but now Saba, Docent, Interwise, Centra and many others are expanding**

❑ **Many aggressive European eLearning companies are targeting US market**

❑ **Some early adopters in Europe, in oil industry for instance, are very advanced**

❑ **EU Commission could be important catalyst**

Global Developments

Asian Opportunities

❑ **Slower adoption than Northern Europe (for now)**

❑ **Korea as regional early adopter?**

❑ **Singapore aspiring to become a "knowledge hub" and regional eServices exporter**

❑ **A Japanese wildcard: Mobile Learning (especially in 3G environment)**
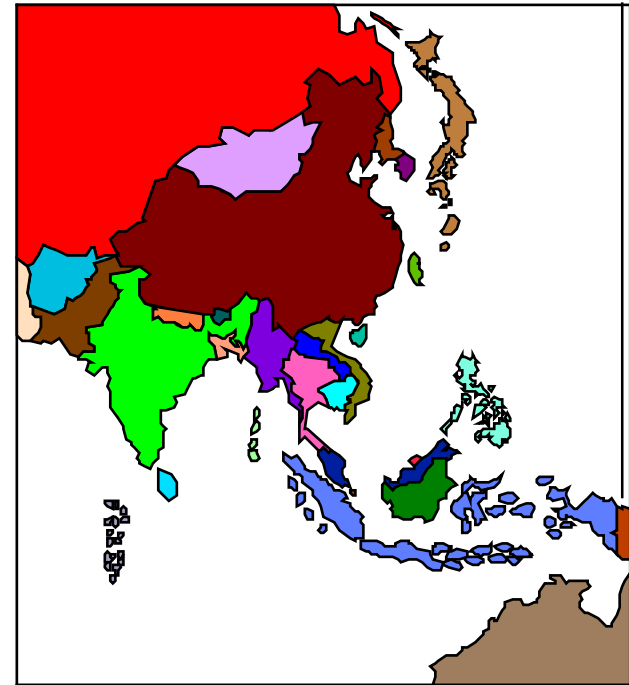
Global Developments

Asian Market Features/Developments

❑ **Growing number of US eLearning companies positioning themselves for take-off in Japan — the most advanced and dominant regional economy**

❑ **Government in Singapore very supportive of eLearning, but very small domestic market — can it become leading regional eLearning exporter?**

❑ **How will Korea's fervent embrace of Internet and eCommerce impact eLearning adoption?**

❑ **Regional Wild Card: China**

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Government in eLearning
Role and Opportunities

- ❑ **Internal use to give employees expanded learning opportunities — scale economies give government deployments advantage**

- ❑ **Use its "gorilla user status" as catalyst for eLearning standards adoption — ADL initiative launched by DoD and OSTP shining example**

- ❑ **Use policy instruments to stimulate and incentivize eLearning adoption**

Government in eLearning
Department of Defense

"We're a few standard deviations ahead of most, including those in industry, yet most people don't know who we are."

Michael Parmentier, Readiness and Training unit, DoD

" Trust me, the guys in charge of training at the Pentagon are a very sharp group. They have seen and evaluated *everything*."

Marc Prensky; *Digital Game-Based Learning*

Government in eLearning: DoD at the Leading/Bleeding Edge

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"In the 1970s, the DoD developed aircraft, tank, and submarine simulators, and in the mid 1980s SIMNET pods, networked tank simulators that trained the troops up through and including the Gulf War. The DoD has invested more than $1 billion in JSIM, its current high-end simulation technology."

" At the University of Southern California's Institute for Creative Technology, a STRICOM [the Army's Strategy, Training and Instrumentation Command]-sponsored project involves bringing in creative artists from Hollywood's special effects studios to work with scientists and Army researchers to create huge "Holodeck"-like environments for mission rehearsal."

Marc Prensky; *Digital Game-Based Learning*

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Government in eLearning

Large-scale Federal Initiatives

❑ **eArmyU (announced Dec 2000)**

— **Largest eLearning Initiative to date**

— **Coalition of vendors led by PwC**

❑ **Navy eLearning (launched May 2001)**

— **1.2 million learners**

— **Portal hosted/managed by Thinq**

❑ **GSA Online University (launched May 2001)**

— **$4 million initiative hosted by VCampus**

— **Demo project for other agencies**

Implications & Lessons Learned
Think Beyond Courses

❑ **Position courses as formal and small part of overall online learning environment**

❑ **Enable different forms of communications and collaboration**

❑ **Strive to build learning communities — incentivize participation and contribution**

❑ **Ensure alignment of business/operational goals & objectives with learning goals & objectives**

Implications & Lessons Learned
Think Beyond Internal Learning

❑ **Can eLearning platforms & resources be shared with existing customers, suppliers and business partners (inside and outside of government)?**

❑ **How can eLearning platforms & resources be used to find and retain new customers (where does this apply in government)?**

❑ **Can eLearning be connected and aligned with eGovernment (or government's eCommerce/ eBusiness initiatives)?**

❑ **Opportunities for private-public partnerships?**

Think Beyond "Traditional Content"

❑ **How can more engaging content be created — and used cost effectively?**

❑ **What existing G&S content (or tools & technologies) — in industry or government — can be reused/leveraged?**

❑ **Should more visual presentation materials (either static or dynamic) be used to improve learning effectiveness?**

❑ **Where can/should (granularized) content be delivered via PDAs and other small portable devices?**

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Implementations Guidelines

❑ **Think blended learning**

❑ **Take organizational culture into account**

❑ **"Change management" can improve receptivity**

❑ **Synchronous tools provide good starting point**

❑ **Consider collaboration tools (chat rooms, discussion boards) to augment self-paced eLearning**
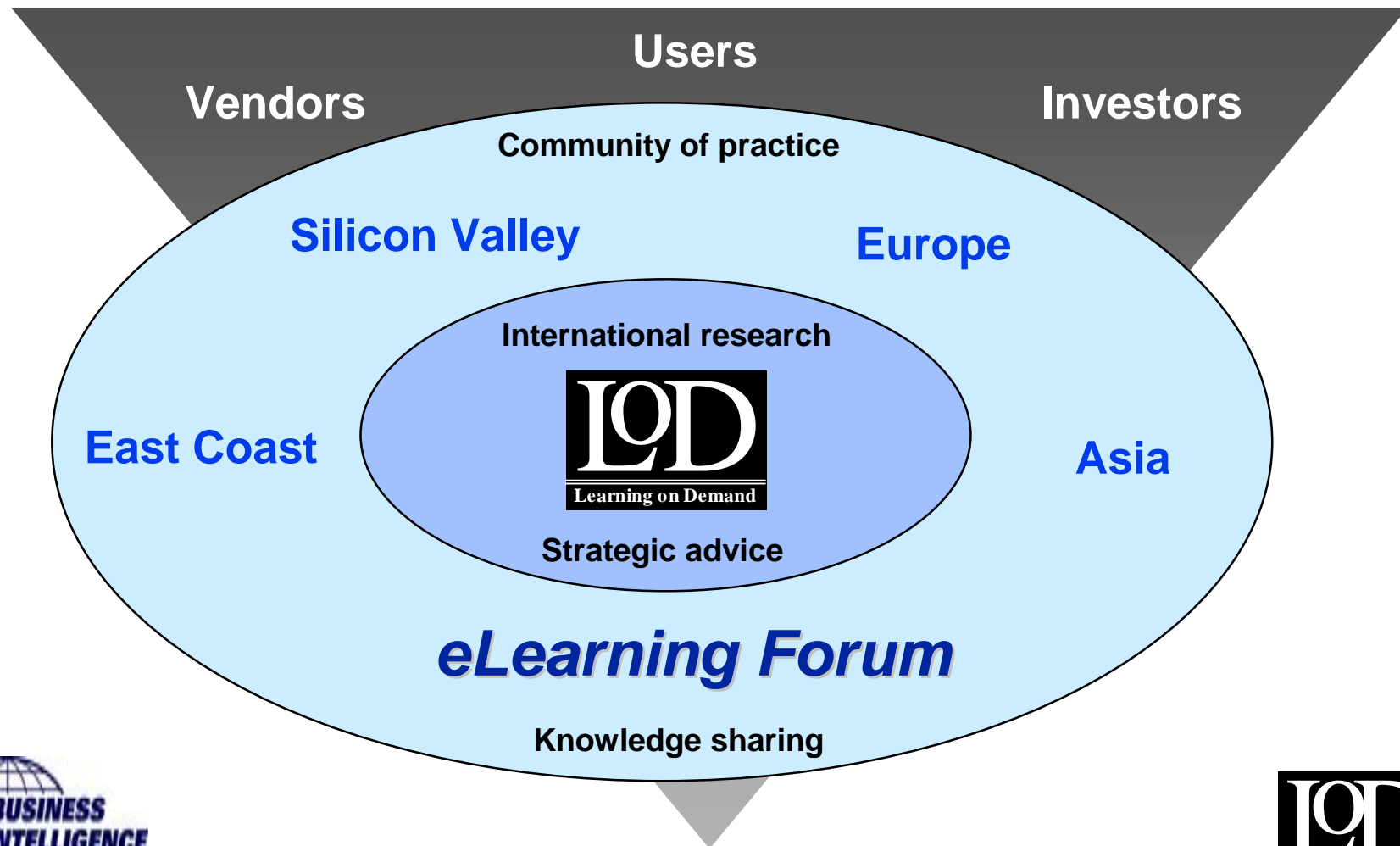
❑ **Personalize as much as possible**

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An International Community of Practice
… underpinned by SRIC Business Intelligence research

Users

Vendors

Investors

Community of practice

Silicon Valley

Europe

International research

LoD
Learning on Demand

East Coast

Asia

Strategic advice

eLearning Forum

Knowledge sharing

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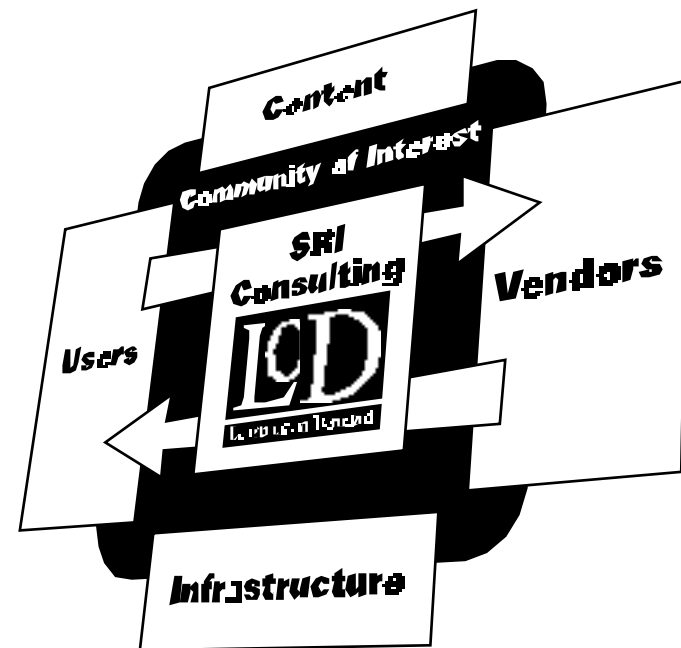
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